

Fig.1

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1 GAATTCATGG TGTTTTGATC ATTTTAAATT TTTATATGGC GGGTGGTGGG CAACTCGCTT 60
60 CCGGGCAACT CGCTTACCGA TTACGTTAGG GCTGATATTT ACGTAAAAAT CGTCAAGGGA 120
121 TGCAAGACCA AAGTAGTAAA ACCCCGGAGT CAACAGCATC CAAGCCCAAG TCCTTCACGG 180
181 AGAAACCCCA GCGTCCACAT CACGAGCGAA GGACCACCTC TAGGCATCGG ACGCACCATC 240
241 CAATTAGAAG CAGCAAAGCG AAACAGCCCA AGAAAAAGGT CGGCCCGTCG GCCTTTTCTG 300
301 CAACGCTGAT CACGGGCAGC GATCCAACCA ACACCCTCCA GAGTGACTAG GGGCGGAAAT 360
361 TTAAAGGGAT TAATTTCCAC TCAACCACAA ATCACAGTCG TCCCCGGTAT TGTCCTGCAG 420
421 AATGCAATTT AAACCTTTCT GCGAATCGCT TGGATTCCCC GCCCCTGGCC GTAGAGCTTA 480
481 AAGTATGTCC CTTGTCGATG CGATGTATCA CAACATATAA ATACTAGCAA GGGATGCCAT 540
541 GCTTGGAGGA TAGCAACCGA CAACATCACA TCAAGCTCTC CCTTCTCTGA ACAATAAACC 600
601 CCACAGAAGG CATT T
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615

Fig.2

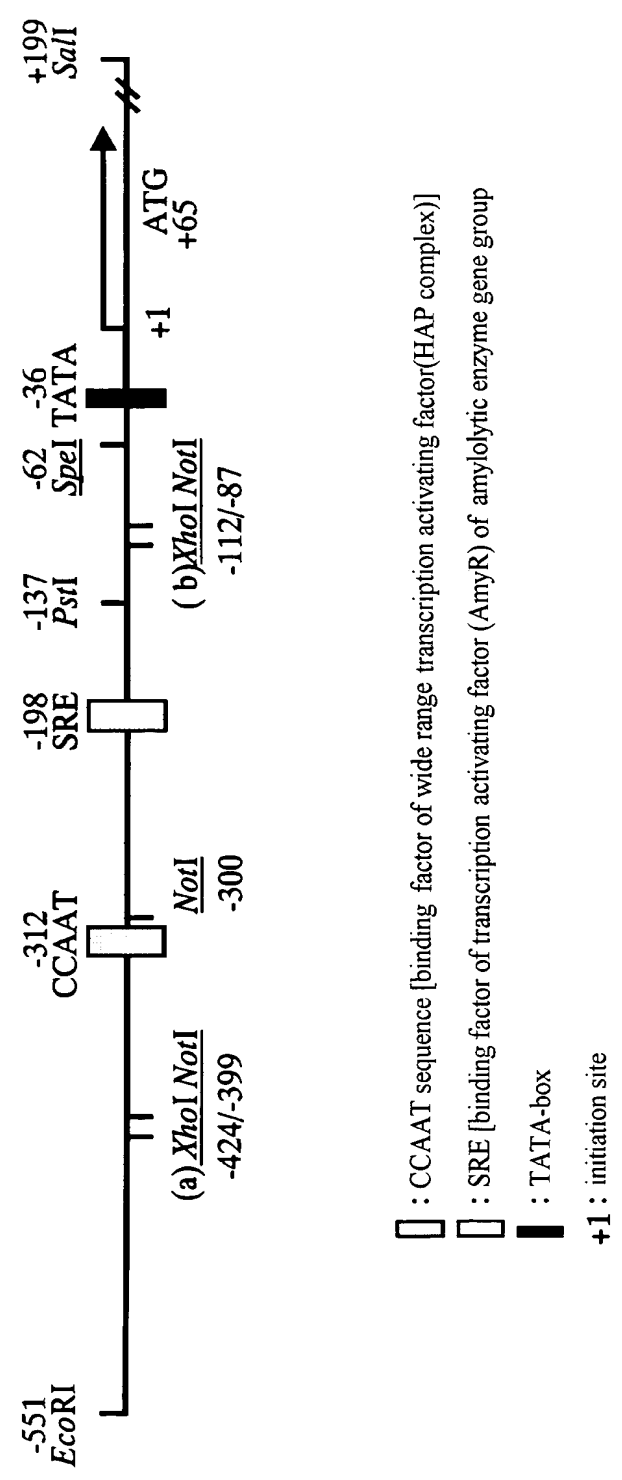
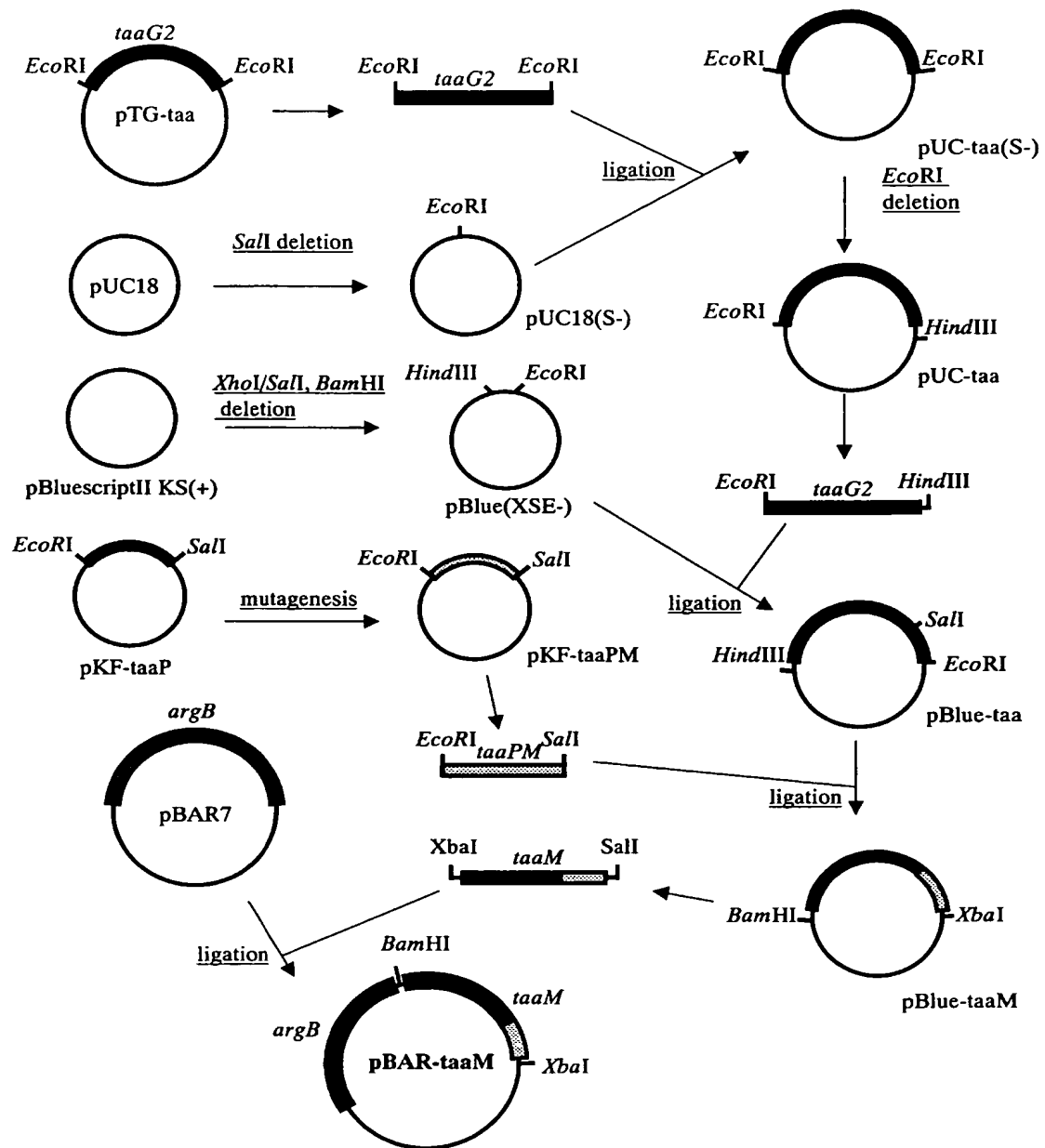


Fig.3



taaG2 : Taka-amylase A gene

argB : ornithine carbomoyltransferase gene (selection marker)

taaM : Taka-amylase gene including modified promoter

Fig.4

promoter	production amount of amylase (mg/L)					
	starch			maltose		
	ABPU1	Δ agdB	ABPU1/ Δ agdB	ABPU1	Δ agdB	ABPU1/ Δ agdB
Taa	68	397	5.8	81	572	7.1
PCSb	325	332	1.0	363	727	2.0
PCSPb	478	N.D.	—	462	1031	2.2